

We claim:

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1. An item capture research system, said system comprising:
 - (a) an item capture subsystem; and
 - (b) a transaction data archive subsystem having a multiple data structures.
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2. The system of claim 1, further including an image data archive subsystem.
3. The system of claim 2, wherein said image data archive subsystem includes an on-us items image database and a transit items image database.
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4. The system of claim 3, wherein said on-us items image database is comprised of a bank ID number, an account number, and an image date.
5. The system of claim 3, wherein said transit items image database is comprised of a sorter ID number, an image date, and a sequence number.
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6. The system of claim 3, wherein said image data archive subsystem is further comprised of a white paper image database.
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7. The system of claim 6, wherein said white paper image database is comprised of an account number and an image date.
8. The system of claim 2, wherein said image data archive subsystem is

further comprised of an image data index.

9. The system of claim 8, wherein said image data index is comprised of an image date, a sorter ID number, a sorter cycle and a sequence number.

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10. The system of claim 9, wherein said image data index is further comprised of a database identifier.

11. The system of claim 1, wherein said item capture subsystem is further
10 comprised of a document processor.

12. The system of claim 11, wherein said item capture subsystem is further
comprised of an image camera.

15 13. The system of claim 12, wherein said item capture subsystem is further
comprised of an associator.

14. The system of claim 1, wherein said item capture subsystem is further
comprised of an image camera.

20 15. The system of claim 14, wherein said item capture subsystem is further
comprised of an associator.

16. The system of claim 1, wherein said item capture subsystem can capture
25 information relating to an electronic transaction.

17. The system of claim 16, wherein the electronic transaction is selected from the group consisting of an ATM transaction, a wire transaction, a phone access transaction, a debit card transaction and an online transaction,

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18. An transaction data archive system for an item capture research system, said transaction data archive system comprising:

- 10 (a) an on-us items data structure;
- (b) an all items data structure; and
- (c) a cash letter items data structure.

19. The system of claim 18, further including a research engine 18 for receiving an item request and directing a response to the item request.

15 20. The system of claim 19, wherein said research engine is comprised of a request interpreter, a request director, a request processor.

21. The system of claim 20, wherein said request interpreter is an all items request interpreter and is used to search the all items data structure.

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22. The system of claim 20, wherein said request interpreter is a cash letter request interpreter and is used to search the cash letter items data structure.

23. The system of claim 20, wherein said request director directs a search

request to the request processor.

24. The system of claim 20, wherein said request processor is an all entries request processor.

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25. The system of claim 20, wherein said request processor is an all items request processor.

10 26. The system of claim 20, wherein said request processor is a cash letter request processor.

27. The system of claim 20, wherein said request processor is a cash letter items request processor.

15 28. The system of claim 18, wherein said on-us items data structure is comprised of an on-us items file.

20 29. The system of claim 28, wherein said on-us items file is comprised of MICR codeline data, a posted amount, a bank ID number, an account number and a posting date.

30. The system of claim 29, wherein said MICR codeline data is comprised of a routing/transit number, an account number and a serial number.

31. The system of claim 30, wherein said MICR codeline data is further comprised of a process control field.

5 32. The system of claim 29, wherein said on-us items file is further comprised of at least one additional data field selected from the group consisting of a sequence number, payee account number, transaction code and import source.

10 33. The system of claim 28, wherein said on-us items file is a VSAM file.

34. The system of claim 28, wherein said on-us items file is online.

15 35. The system of claim 18, wherein said on-us items data structure is further comprised of an on-us items archive file.

20 36. The system of claim 35, wherein said on-us items archive file is comprised of MICR codeline data, a posted amount, a bank ID number, an account number and a posting date.

37. The system of claim 36, wherein said MICR codeline data is comprised of a routing/transit number, an account number and a serial number.

38. The system of claim 37, wherein said MICR codeline data is further comprised of a process control field.

39. The system of claim 36, wherein said on-us items archive file is further comprised of at least one additional data field selected from the group consisting of a sequence number, payee account number, transaction code and import source.

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40. The system of claim 35, wherein said on-us items archive file is a VSAM file.

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41. The system of claim 35, wherein said on-us items archive file is offline.

42. The system of claim 35, wherein said on-us items archive file is stored on magnetic tape.

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43. The system of claim 35, wherein said on-us items data structure is further comprised of an on-us items archive index, wherein the on-us items archive index is an index to the on-us items archive file.

44. The system of claim 43, wherein said on-us items archive index is a VSAM file.

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45. The system of claim 43, wherein said on-us items archive index is online.

46. The system of claim 43, wherein said on-us items archive index is stored on a DASD.

47. The system of claim 18, wherein said all items data structure is comprised of an all entries file.

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48. The system of claim 47, wherein said all entries file is comprised of a capture site, a capture date, and an entry number.

49. The system of claim 48, wherein said entry number is further comprised of
10 block information, the block information being comprised of a block sequence number and a block amount.

50. The system of claim 49, wherein said block information is further comprised of batch information, said batch information being comprised of a batch
15 sequence number and a batch amount.

51. The system of claim 47, wherein said all entries file is a VSAM file.

52. The system of claim 47, wherein said all entries file is online.
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53. The system of claim 47, wherein said all entries file is stored on a DASD.

54. The system of claim 47, wherein said all items data structure is further

comprised of an all items file.

55. The system of claim 54, wherein said all items file is comprised of item
information, said item information being comprised of MICR codeline data, an item
amount, and an item sequence number.

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56. The system of claim 54, wherein said all items file is a VSAM file.

57. The system of claim 54, wherein said all items file is online.

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58. The system of claim 54, wherein said all items file is stored on a DASD.

59. The system of claim 47, wherein said all items data structure is further
comprised of an all items archive file.

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60. The system of claim 59, wherein said all items archive file is comprised of
item information, said item information being comprised of MICR codeline data, an item
amount, and an item sequence number.

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61. The system of claim 59, wherein said all items archive file is a VSAM file.

62. The system of claim 59, wherein said all items archive file is offline.

63. The system of claim 59, wherein said all items archive file is stored on magnetic tape.

5 64. The system of claim 59, wherein said all items data structure is further comprised of an all items archive index, wherein the all items archive index is an index to the all items archive file.

10 65. The system of claim 64, wherein said all items archive index is a VSAM file.

15 66. The system of claim 64, wherein said all items archive index is online.

67. The system of claim 64, wherein said all items archive index is stored on a DASD.

15 68. The system of claim 18, wherein said cash letter items data structure is comprised of a cash letter file.

20 69. The system of claim 68, wherein said cash letter file is comprised of an end point identifier, a cash letter date, a cash letter amount and a cash letter time.

70. The system of claim 68, wherein said cash letter file is a VSAM file.

71. The system of claim 68, wherein said cash letter file is online.

72. The system of claim 68, wherein said cash letter file is stored on a DASD.
- 5 73. The system of claim 68, wherein said cash letter items data structure is further comprised of a bundle items file.
74. The system of claim 73, wherein said bundle items file is comprised of at least one bundle, wherein said at least one bundle is comprised of a bundle amount, a bundle time, and a bundle date.
- 10 75. The system of claim 74, wherein said at least one bundle is further comprised of at least one item, said at least one item being comprised of MICR codeline data and an item amount.
- 15 76. The system of claim 73, wherein said bundle items file is a VSAM file.
77. The system of claim 73, wherein said bundle items file is online.
- 20 78. The system of claim 73, wherein said bundle items file is stored on a DASD.
79. The system of claim 73, wherein said cash letter items data structure further includes a bundle items archive file.

80. The system of claim 79, wherein said bundle items archive file is comprised of at least one bundle, wherein said at least one bundle is comprised of a bundle amount, a bundle time, and a bundle date.

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81. The system of claim 80, wherein said at least one bundle is further comprised of at least one item, said at least one item being comprised of MICR codeline data and an item amount.

10 82. The system of claim 79, wherein said bundle items archive file is a VSAM file.

15 83. The system of claim 79, wherein said bundle items archive file is offline.

15 84. The system of claim 79, wherein said bundle items archive file is stored on magnetic tape.

20 85. The system of claim 79, wherein said cash letter items data structure is further comprised of a bundles items archive index, wherein the bundle items archive index is an index to the bundle items archive file.

86. The system of claim 85, wherein said bundle items archive index is a VSAM file.

87. The system of claim 85, wherein said bundle items archive index is online.

5 88. The system of claim 85, wherein said bundle items archive index is stored
on a DASD.

10 89. An item capture research system, said system comprising:
 (a) an item capture subsystem;
 (b) an image archive subsystem; and
 (c) a transaction data archive subsystem having a multiple data structures,
 said multiple structures being comprised of: (i) an on-us items data
 structure, (ii) an all items data structure; (iii) a cash letter items data
 structure; and
 (d) a research engine for receiving an item request and directing a response to
 the item request.
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